



PlasLOC⁺

High-Performance Plastic Baling Wire

Validation Study

Commercial Evaluation of
PlasLOC+ Bales

Customer testing demonstrating PlasLOC+ performance
and reliability from baling through downstream processing.

Application | Recovered Fiber Processing

Prepared by ACCENT | August 2026



PLASLOCPLUS.COM

ACCENT | 281.255.0700
PLASLOCPLUS@ACCENTWIRE.COM
10131 FM 2920 | TOMBALL, TX 77375 | USA

EXECUTIVE OVERVIEW

PlasLOC+® has moved beyond the trial stage and is now being used successfully in everyday baling operations. By replacing 10 GA black annealed steel wire with PlasLOC+, the facility has reduced downtime and maintenance, improved safety and housekeeping, and successfully shipped more than 70,000 bales with no reported mill rejections.

70,000+
BALES PROCESSED

PlasLOC+ recovered fiber bales shipped and processed since implementation

0
MILL REJECTIONS

100% mill acceptance reported by customer

10-15 hrs/mo
DOWNTIME REDUCTION

Estimated downtime reduction cited by plant management

\$900/hr
DOWNTIME SAVINGS

Approximate hourly cost of downtime at customer site

4-5 hrs/mo
LABOR COST REDUCTION

Estimated maintenance labor reduction to date

95%
LOWER CO₂ FOOTPRINT

Up to 95% lower CO₂ footprint compared to steel, based on material carbon intensity and material used per bale

CORE FINDINGS

The project is commercially validated at scale, with 70,000+ bales shipped and processed and zero mill rejections reported.

VALUE DRIVER	PlasLOC+ RESULT / OBSERVATION
Reliability	The plant reports lower downtime, fewer steel-wire-related forklift issues, no weather related issues and no breakage, helix or cast issues reducing quality claims cost.
Safety	Wire-related safety incidents reduced to zero and operators/maintenance prefer PlasLOC+.
Performance	Product performance concerns eliminated. PlasLOC+ has proven to perform as reliably as steel wire in downstream mill operations.
Total Value	Proven total cost of ownership savings: from safety and uptime to maintenance, housekeeping, sustainability, and mill acceptance, PlasLOC+ delivered measurable value beyond the cost of wire.

THE PRODUCT

PlasLOC+® is a high-performance PET baling wire made from 100% recycled PET bi-polymer, engineered with Accent's patented technology to match or exceed the performance of steel baling wire.

THE CUSTOMER

High-volume North American recovered fiber operation using commercial baling equipment in continuous production.

THE STUDY

This anonymized study summarizes a real commercial conversion from steel wire to PlasLOC+ in paper recycling applications.

This study shows the results from an actual customer that switched from steel baling wire to PlasLOC+. It covers baler performance, maintenance, safety, outdoor storage and mill acceptance.

“
THERE IS NO ISSUE AT
ALL IN OUR MILLS.
EVERYTHING IS RUNNING
SMOOTHLY.

Technical Expert

“
MY MAINTENANCE
WENT DOWN
TREMENDOUSLY.

Maintenance Manager

“
I'LL NEVER GO BACK
TO STEEL.

Mill Manager

“
THERE IS NO DIRTY OIL
ON THE FLOOR ANYMORE

Safety Manager



Commercial inventory: PlasLOC+ reels staged at customer facility.



PlasLOC+ reel mounted in payoff stand.

INSTALLATION: FROM REEL TO FINISHED BALE

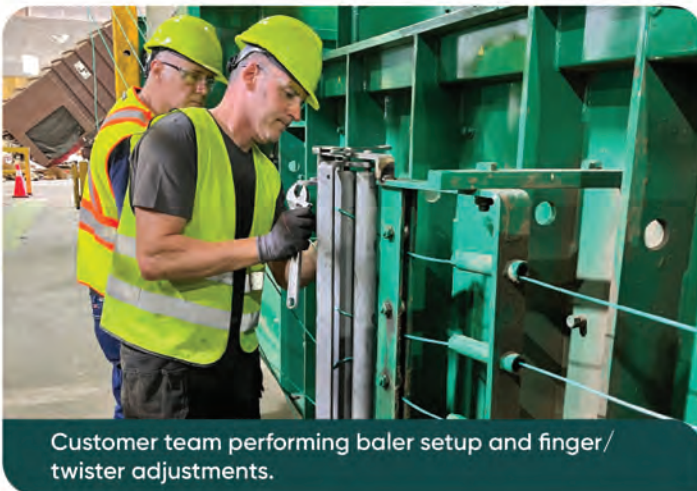
The evaluated facility demonstrated that PlasLOC+ can be staged, fed, formed, and handled in a commercial baling operation. The images below document the implementation path from reel inventory to the baler feed system and finished bale.



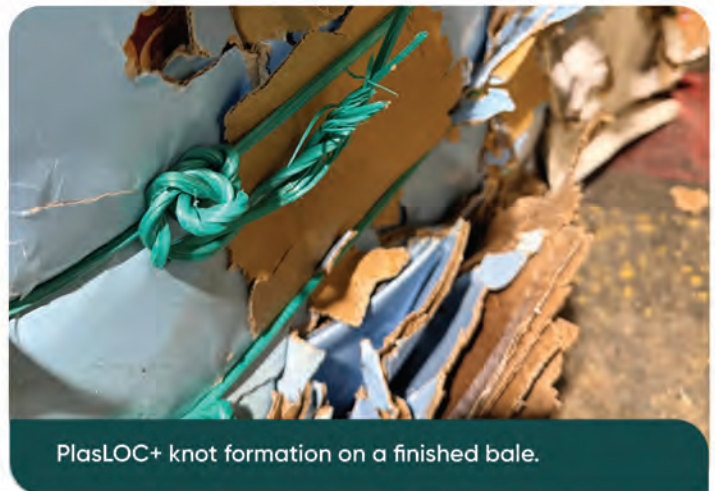
Close-up of PlasLOC+ feeding through the payoff arrangement.



Baler area with PlasLOC+ reels in production position.



Customer team performing baler setup and finger/twister adjustments.



PlasLOC+ knot formation on a finished bale.

IMPLEMENTATION OBSERVATIONS

During initial implementation, the plant experienced a learning curve related to finger adjustments and reel setup. Some modifications were made to optimize the baler for PlasLOC+. Once completed, the wire demonstrated consistent feeding and payoff performance, with no recurring issues reported during continued operation.

MAINTENANCE AND UPTIME FINDINGS

Plant-level results show improved operational reliability, with no reported weather-related wire breakage or finger breakage to date. Proven improvements in cutter and guide life have also reduced maintenance downtime and replacement-part costs.

AREA	STEEL WIRE BASELINE	PLASLOC+ RESULT / OBSERVATION
Cutter knives	Cutters checked and adjusted every other day creating downtime. Cutters replaced every 4 months. \$145 each.	Monthly cutter inspections required no adjustments; cutters were replaced after nine months due to pre-existing steel wire wear.
Wire guides / rollers	Changed about every 3 months; replacement rollers and wire guides listed at \$68 and \$155 each.	No guide or roller replacements reported to date.
Downtime	Recurring steel-wire impacts, including winter breakage and forklift entanglement.	Estimated 10–15 hours/month reduction; downtime valued at about \$900/hour.
Mobile equipment	Steel wire could wrap around forklift wheels or underneath units.	Reduced forklift maintenance issues associated with wire entanglement.
Twister mechanism	Steel wire places higher stress on fingers/twisters and was associated with breakage.	No finger breakage reported since PlasLOC+ conversion; adjustments remain a follow-up item.

“Operators and maintenance prefer plastic.”

Plant Manager



Steel-wire twister component compared with PlasLOC+ twister component.



PlasLOC+ twister hardware detail.

SAFETY AND HOUSEKEEPING IMPROVEMENTS

PlasLOC+ removes two long-standing safety and operational concerns associated with steel wire: puncture/cut risk and oil-related housekeeping. The plant reported no cuts or puncture injuries from PlasLOC+ and a cleaner operating area because the coils require no oiling.

Zero

RELATED INJURIES

Steel wire had caused frequent cuts or punctures; none were reported with PlasLOC+.

Eliminated

OIL CLEANUP

No coil oiling and no absorbent cleanup required

Reduced

SLIP HAZARD

No oily surfaces in the baler area.

Preferred

OPERATOR PREFERENCE

PlasLOC+ delivered smooth, reliable performance, earning positive feedback from operations and maintenance teams.



Operators and maintenance prefer plastic wire.

IMPACT ON OPERATIONS

- Cleaner machine and finished bales because the wire is not oil-coated.
- Less cleanup labor and less need for absorbent material in the work area.
- Reduced risk of sharp-wire punctures during handling and removal.
- Higher visibility of green PlasLOC+ on finished bales and around equipment.

BALE INTEGRITY AND ALL-WEATHER STORAGE VALIDATION

One of the most common initial concerns to PlasLOC+ bales was long-term outdoor performance. Outdoor bales remained exposed throughout the six-month fall and winter period with no wire-related issues, loosening, or bale expansion observed.



Indoor stacked bales with PlasLOC+.



OCC bale with uniform PlasLOC+ spacing visible.



Outdoor bale storage after winter exposure.

VALIDATED PERFORMANCE

-  Proven all-weather performance through harsh winter conditions and high-heat exposure.
-  No loosening or expansion was reported by the customer.
-  No wire breakage was reported by the plant.
-  Green PlasLOC+ remains visible on stored bales.
-  Results support northern-climate MRF and paper recycler applications.



Outdoor storage validation: PlasLOC+ remains visible and intact.

MILL PROCESSING AND ACCEPTANCE

Downstream mill acceptance is a key validation point for PlasLOC+ in paper applications. The customer has successfully supported adoption through structured mill communication, real-world commercial processing, and a follow-up feedback from its technical team.

70,000+
PlasLOC+ BALES

PlasLOC+ recovered fiber bales shipped and processed since implementation

0
MILL REJECTIONS

100% mill acceptance reported by customer

★★★★★
5-STAR PERFORMANCE

PlasLOC+ delivered smooth, issue-free performance from baling through mill processing, with zero reported mill rejections



Ragger waste stream containing intact PlasLOC+ and pulper rejects.

CUSTOMER MILL STUDY RESULTS

- No production issues occurred during tests in continuous pulpers with and without raggars.
- Conveyor guillotines were able to process PlasLOC+.
- PlasLOC+ wrapped around the raggar and remained intact; no fragmentation was observed.
- In pulpers without raggars, PlasLOC+ clumped into a removable ball.
- A third-party receiving mill trial was successful, and no negative feedback from other receiving mills was reported.

“So far, there is no issue at all in our mills, everything is running smoothly.”

– Technical Expert